Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Performance Measurements and	)	CC Docket No. 98-56
Reporting Requirements	)	RM-9101
for Operations Support Systems,	)	
Interconnection, and Operator Services	)	
and Directory Assistance	)	

BELLSOUTH CORPORATION REPLY COMMENTS

BELLSOUTH CORPORATION

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BELLSOUTH CORPORATION REPLY COMMENTS

INTRODUCTION AND SUMMARY

BellSouth Corporation submits these reply comments on behalf of itself and BellSouth Telecommunications, Inc. Comments from companies on which the burden of measuring performance falls illustrate that performance measurement is a complex and costly task. The task is further complicated by the fact that internal systems vary across companies, making a single national approach ill-suited to defining the implementation of performance measures. The development and implementation of performance measures is best left to individual carrier negotiations backstopped by state commissions. This is the approach BellSouth has followed in developing a broad, thorough set of performance measures that BellSouth has been able to implement efficiently. To the extent the Commission feels compelled to insert itself into the performance measurement business, the Commission must follow through on its stated intention to issue only model

guidelines. Those guidelines should endorse approaches to measurement across broad categories, but should not imply in any way that the model measures and reports are the only ways to develop meaningful performance data.

BellSouth sets out below responses to various comments. Several competitive carriers seek to add to the Commission's proposal more and more measurements and reporting categories. These additions have substantial costs, both direct and indirect, as demonstrated below. The Commission should not further enlarge its already broad proposals. Doing so would exponentially increase costs, drown the industry in data, and further exacerbate the "large, bad and unintended" effects of this proceeding. *Dissent of Commissioner Furchtgott-Roth* at 1.

I. ANY COMMISSION ACTION ON PERFORMANCE MEASURES MUST EXPLICITLY ENDORSE THE USE OF ALTERNATIVE APPROACHES SUCH AS BELLSOUTH'S SERVICE QUALITY MEASUREMENTS

BellSouth has been investing substantial resources for some time in developing and implementing a set of performance measures. Attachment A is BellSouth's set of Service Quality Measurements (SQM). These were developed based on experience with individual CLEC negotiations in conjunction with state commission input. BellSouth is currently reporting on the vast majority of these measures, with final implementation of the remaining measures scheduled for the early fall. The SQM are divided into nine broad categories: 1) Pre-Ordering and Ordering OSS; 2) Ordering; 3) Provisioning; 4) Maintenance and Repair; 5) Billing; 6) Operator Services (Toll) and Directory Assistance; 7) E911; 8) Local Interconnection Trunk Group Blockage; and 9)

Collocation. Reporting on these categories is generally broken down into several sub-categories along the lines proposed by the Commission, as shown in Attachment A.

Using its SQM, BellSouth is currently providing a vast array of data on BellSouth performance that is useful to "analyze[ing] whether new providers of local telephone service are able to access, among other things, the support functions (that is, the functions provided by computer systems, databases, and personnel) of incumbent local telephone companies in a nondiscriminatory and just and reasonable manner consistent with the Telecommunications Act of 1996 (1996 Act) requirements." *Notice* at ¶ 3. Thus, BellSouth's SQM already meets the basic goals set out for this proceeding.

Attachment B is a matrix comparing BellSouth's SQM to the Commission's proposals in its *Notice*. The matrix illustrates that BellSouth's SQM are substantially similar to, and often more comprehensive than, the measures proposed in the *Notice*.[1] Although providing rafts of performance information, BellSouth's SQM reports do not precisely match the Commission's proposals, as described in some detail in BellSouth's Comments. Attempting to force BellSouth, directly or through implication, to revamp its SQM to match every detail of the measures proposed in the *Notice* would not serve the Commission's goal of properly balancing the costs and benefits of performance

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[1] AT&T's comments include a matrix comparing various performance measurement sets, including BellSouth's SQM. *AT&T Comments,* Attachment B. AT&T appears to have used a version of BellSouth's measurements from late 1997, even though BellSouth has provided AT&T several updates since that time. The effect of AT&T's matrix is to substantially understate BellSouth's performance measurement efforts, and may suggest to the Commission that action is necessary where none is required. AT&T's matrix leaves out 12 BellSouth measurements: **Provisioning**, % Complete within "X" days; **Order Status Measurements,** % Rejects with "X" hours, % FOCs within "X" hours, Average Jeopardy Interval, % Orders given jeopardy notice, Average Completion Notice Interval; **Installation Troubles**, % of Troubles within "X" days for New Orders; **Billing**, Average time to provide Usage Records; **General Measurements**, Center Availability; **Interconnection Measurements**, Average Time to Respond to Collocation Requests, Average Time to Provide a Collocation Arrangement, % of Due Dates Missed - Collocation Arrangements.

measurement. *Notice* at ¶¶ 36-37. The costs of revamping the SQM, and rendering the data reported under them so far obsolete, would not meaningfully improve BellSouth's performance measurements. The Commission must allow existing approaches to performance measurement the opportunity to prove out in the market before endorsing any changes to those measures.

In fact, any Commission action regarding performance measurements must explicitly endorse alternative approaches to performance measurement and reporting. The industry is too diverse for a single set of measures to be imposed from the federal level. ILECs have different OSS platforms, different levels of regionalization, different products and services and thus different capabilities to measure and report.[2] The Commission would best serve the market and consumers by identifying broad approaches to measurement and reporting rather than attempting to micro-manage the definition of exact measures and precise reporting requirements as it proposes in the *Notice*.[3] To do otherwise would create an array of problems and substantially raise costs across the industry. It would penalize carriers like BellSouth that have been proactive in developing and implementing a set of performance measures. It would straight-jacket innovation to create new approaches to providing useful measurement data in more cost-effective ways. It would force a one-size-fits-all national approach on a complex array of regional and local systems, inevitably raising costs unnecessarily. It would also run roughshod over the market process of individual negotiations and the interests and expertise of state

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[2] The Commission has recognized that operations support systems vary across the country. This variety means that systems perform differently and have different measurement capabilities. *Local Competition First Report and Order*, 11 FCC Rcd at ¶ 526.

[3] Thus, the Commission could simply describe generic types of performance variables it believes could usefully be measured rather than attempting to micro-manage the implementation of those measures through dictating precise formulas or otherwise.

commissions concerning their local markets. The 1996 Act was intended to be de-regulatory, the Commission should allow the market to implement solutions to performance measurements rather than micro-managing the process.

II. THE COSTS OF FURTHER REPORTING DISAGREGATION OUTWEIGH ANY OF THE HYPOTHETICAL BENEFITS IDENTIFIED BY CLECS

The Commission requested comment on whether further disaggregation of its proposed measures and reports would be appropriate. *Notice* at ¶¶ 37-38. Several CLECs took this opportunity to advocate all manner of additional disaggregation, on both geographic and product levels. *See AT&T Comments* at 18-38; *MCI Comments* at 15-16. These demands for continually increasing numbers of measures and reports may prove to be never ending. Attachment C illustrates how AT&T's demands for performance measures have grown over time. Although AT&T is a charter member of LCUG and sponsor of its performance measures, AT&T now seeks to add 15 new measures to those proposed by LCUG. MCI goes AT&T one better, demanding 16 additional measures (measures which do not match up with AT&T's). *MCI Comments* at 9 (8 new general measures), 12 (5 measures relating to 911 services) and 15 (3 collocation measures).

BellSouth pointed out in its comments that the entire basis for the Commission's already overly detailed proposed measures is "anecdotal evidence" that ILEC discrimination "may" have occurred. *BellSouth Comments* at 6, *quoting Notice* at ¶ 13. No comments have changed the state of the record on this issue. MCI's elusive justification of performance measurement on this grand scale is representative - "the benefits associated with detailed data collection are enormous, because the need for this reporting is acute." MCI Comments at 6. Yet, the "need" for the proposed level of

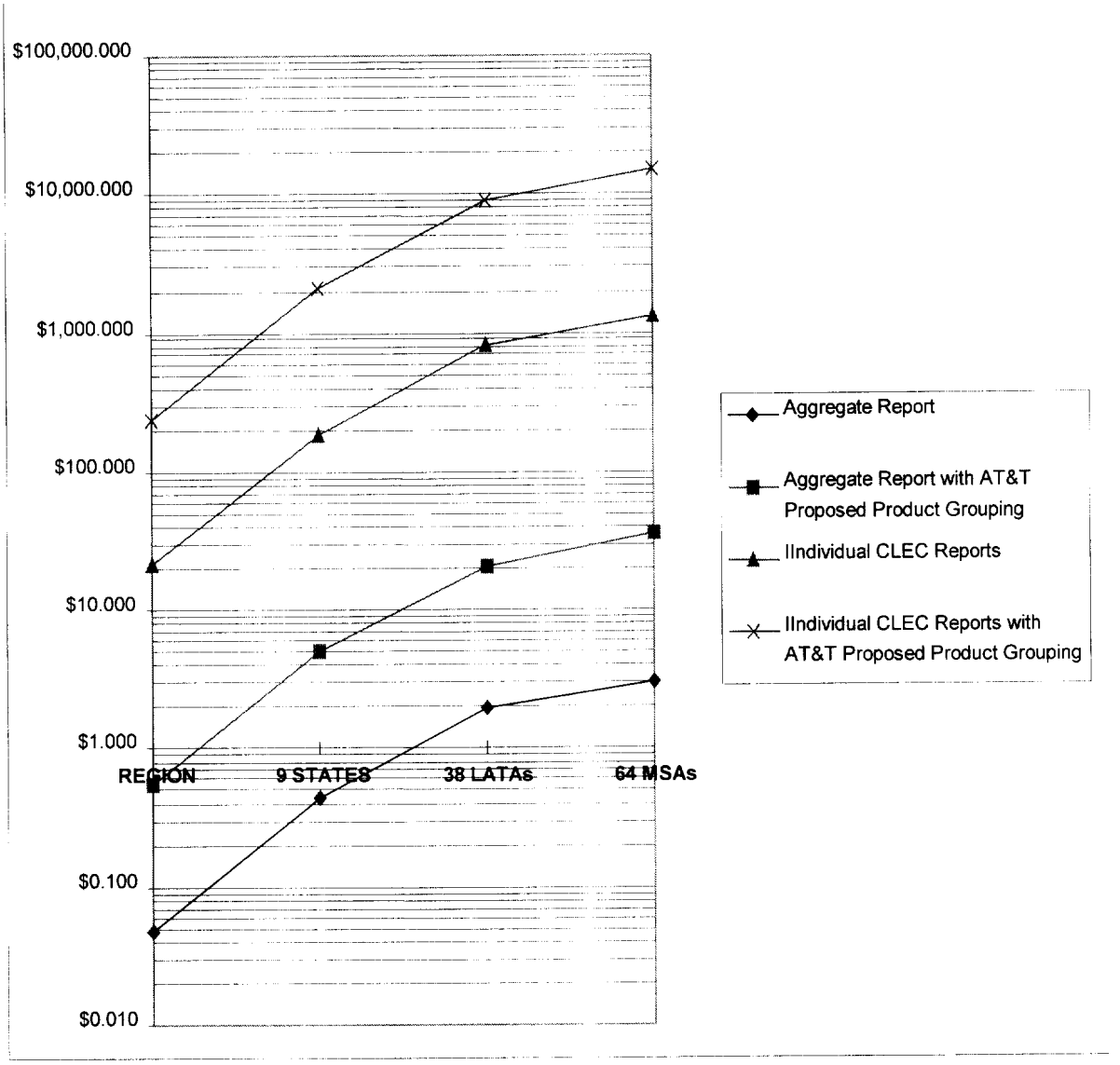
reporting remains entirely undocumented beyond the Commission's characterization of the record as anecdotal stories that an ILEC may discriminate.

While the benefits of further disaggregation remain elusive and undocumented, the direct costs are large and concrete. The indirect costs are the "large, bad and unintended" burdens identified in Commissioner Furchtgott-Roth's dissent *Dissenting Statement of Commissioner Furchtgott-Roth* at 1. The sheer number of data elements involved suggests these further ventures into disaggregation would be ill-advised. The Commission's current proposal would have BellSouth reporting over 150,000 data elements a month regarding service to itself and the over 400 CLECs with BellSouth contracts. Disaggregation urged by CLECs would have BellSouth report on over 24 *million* data elements each month. Attachment D provides graphs and tables highlighting the effect of various reporting proposals on the number of data elements required.

A conservative estimation of the direct costs of various levels of disaggregation is shown in Figure 1 (supporting information is provided in Attachment D).

Figure 1

Yearly Cost Chart based on $.10 per Data Element
All Numbers x1000



The yearly cost for BellSouth to provide performance reports as proposed in the Commission's *Notice* would be about $183,000 (individual CLEC reports for 9 states).[4] Increased disaggregation exponentially increases the costs involved. Adopting AT&T's proposed product groups for reporting increases costs by more than a factor of ten, to over $2 million per year. MSA level reporting combined with AT&T's product groupings would cost BellSouth over $15 million per year.[5]

These costs will have to be passed on, increasing CLEC operating costs. Imposed across the country, the levels of disaggregation that CLECs urge the Commission to impose would create a tax on consumers of well over $100 million per year.

Until experience with current approaches to performance measurement such as BellSouth's SQM suggest there is a real need for further disaggregation, there is no reasoned basis for the Commission to endorse it. The current record of "anecdotal evidence" is no basis for imposing a $100 million tax on the industry.

III. THE COMMISSION CANNOT RECOMMEND ANY STATISTICAL TEST WITHOUT SUBSTANTIAL FURTHER INVESTIGATION AND INDUSTRY CONSENSUS

BellSouth believes that the development "of a uniform evaluation process that relies on objective criteria" to analyze performance data could serve a useful purpose. *Notice* at ¶ 117. Two key issues emerge from the comments in this area. One is that no

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[4] These costs were conservatively estimated. BellSouth did a 5 year cost analysis beginning with 1998 and ending with 2002. This analysis took into consideration the estimated average cost associated with salaries, capital and expense over the 5 year period divided by the total number of data elements currently supported in the BellSouth Service Quality Measurements.

[5] MediaOne, among others, suggests MSA level reporting. *MediaOne Comments* at 11-12.

statistical analysis can answer the question of whether an ILEC is meeting its statutory non-discrimination obligations. *Notice* at ¶ 119. The other is that as difficult as it is to arrive at a statistical testing method, consensus must also be reached on what is being tested. That is, searching analysis of the test populations and samples involved and how the tests will be applied is required before statistical tools can yield meaningful results. Some of these implications do not appear to have received sufficient attention from the Commission or the commenters.

BellSouth sets out some observations on statistical testing below. Perhaps the key message is that the complexity and novelty of these issues requires a far more developed record before the Commission can endorse any method. BellSouth strongly advocates that the Commission gather information through industry workshops involving experts in the field before it ventures ahead. Given the huge amounts of data and testing that will be involved, the Commission must tread carefully.

First, statistical tests do not prove discrimination.[6] As Ameritech demonstrates, different results here are not proof of discrimination, but instead will occur because carriers are requesting different things. *Ameritech Comments* at 90-91. Thus, service installation and/or repair on the weekends is different from during the week, and different outcomes should be expected. Similarly, CLECs in BellSouth's region have very different business plans. Some are very focused on particular services or types of customers that may be more complex than those of other CLECs or BellSouth. Given the

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[6] And, as Bell Atlantic points out, the 95% confidence interval is the minimum generally accepted confidence level in the field. *Bell Atlantic Comments* at 10, n.16.

variation in CLECs, their business plans and capabilities, end users and service levels, statistical differences cannot be equated with discrimination or the absence of parity.[7]

Even if parity existed and independence could properly be assumed, given the huge number of data elements that will be reported – over 150,000 monthly by BellSouth alone under the Commission's current proposal (millions per month if further disaggregation is adopted), statistical testing at the 95% confidence level will predictably generate, on average, 7,500 (5% of 150,000) BellSouth test results per month indicating statistical differences where no real difference exists. Thousands of predictably mistaken indications of statistical differences each month renders any presumption of discrimination based on test results improper. Even adopting the safe harbor approach suggested in the *Notice* would improperly burden BellSouth and all ILECs with a suspicion of discrimination and a need to investigate in thousands of cases monthly where no discrimination occurred.[8] *Notice* at 121.

Any statistical testing method adopted by the Commission should be generally accepted by statisticians and carefully account for the underlying populations and the nature of the testing. AT&T's modified Z statistic is a revised statistic that is not generally accepted in the field. One particular problem with AT&T's proposed approach is its dependence on a "guess" that Z or t tables would be acceptable for samples of size 10 or more. *AT&T Comments*, Attachment G at 15 (Mallows Affidavit). As US West demonstrates, the number of measures with large Z values is much larger than assumed

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[7] Of course, differences may be statistically significant while being of such small practical significance that they do not affect parity and cannot be noticed in the marketplace.

[8] This problem is rendered far worse by predictable correlation between overlapping measures and over time.

by AT&T for moderate departures from normality when using the modified Z statistic and for CLEC samples of sizes 30-200. *US West Comments*, Appendix A at 13-17 (Carnall Affidavit). If AT&T's procedure were applied to data with these types of distributions, the Type I error rate would be more than 50% rather than the claimed 5%.[9]

AT&T's proposal fails to address several important correlation issues. *Ameritech Comments* at 94-95. For example, AT&T's procedure assumes independence of measures. However, many, if not most, of the Commission's proposed measures are likely to be correlated.[10] In addition, values of a single measurement taken in successive periods will be correlated, although AT&T's proposal simply assumes that they are independent. Again, AT&T's approach will result in a larger risk of Type I errors.[11]

AT&T's proposed procedure is also generally premised on the incorrect assumption that testing will be done only one time, when the fact is that the Commission and all the parties contemplate repeated testing at regular intervals. The risk of Type I error has thus been specified for a single application without regard for the risk associated with repeated application. For example, if the procedure were applied monthly using a 5% Type I risk level, the probability of one or more false alarms within the first year is about 46% (assuming independence of monthly test results, which is not exactly true

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[9] AT&T also does not specifically address cases where the measure is a fraction (e.g. the fraction of customers experiencing service times exceeding a specified limit). It is well known that the distribution of such sample data is not well approximated by the normal distribution when the population fraction is close to zero or one unless the sample size is very large.

[10] To fairly apply statistical testing procedures, the Commission may have to eliminate proposed measures that are highly correlated. For example, it may not be appropriate to apply statistical tests to each sub-category of a single performance measure.

[11] As Ameritech suggests, statistical analyses and testing protocols can be developed to examine the underlying populations and potentially to correct for differences. *Ameritech Comments* at 92. However, these analyses and protocols have not been developed or tested. This would be one important area that could be addressed in future workshops should the Commission wish to endorse a statistical approach to assist in evaluating performance measurement data.

even given AT&T's assumptions). The failure to address the growth in Type I risk over repeated applications requires modifications to AT&T's approach, as do its other mistaken assumptions.

Finally, BellSouth would point out that using statistical process control (SPC) can provide a more realistic approach to data evaluation in this situation. SPC can properly be used to evaluate parity simply by setting the service specification or centerline to zero. *See* Wadsworth, Stephens and Godfrey, *Modern Methods for Quality Control and Improvement*, Wiley, 1986 at 257. SPC can be more realistic because it should be expected that ILEC and CLEC populations will not be perfectly stable across time, and, in fact, they will not exhibit identical instabilities even when there is parity. This is a more appropriate approach than, for example, AT&T's proposal, which does not even consider that the statistical evaluation of parity will be conducted at repeated points in time. The inclusion of intersample variability is critical in determining the appropriate Z scores (or control chart limits using SPC) because a lack of parity should be found only for those cases where a difference in performance exists and the problem is generally under ILEC control. As the ILEC has no control over the stability of the populations (or samples requesting service), any variation due to lack of stability should be incorporated into the test procedure.

IV. THE COMMISSION SHOULD REJECT CREATING RETAIL "ANALOGS" WHERE NONE EXIST

The Commission has consistently noted that not every service an ILEC provides to a CLEC has a direct ILEC analog, and has crafted a standard to evaluate ILEC provided access to these services. *Notice* at ¶ 29 ("For those OSS functions that have no

direct retail analog, such as the ordering and provisioning of unbundled network elements, an incumbent LEC must provide access sufficient to allow an efficient competitor a meaningful opportunity to compete"); *Local Competition Order First Report and Order*, 11 FCC Rcd at 15766, ¶523. However, a number of commenters now suggest that the Commission engage in creating analogs where none exist, and then require parity for service involving the "analogs." The Commission should continue its course and reject this misplaced exercise in creativity.

As an initial matter, BellSouth would point out that much of this debate makes a mountain out of a molehill. 84% of BellSouth's SQM reports have retail equivalents for direct comparison. Of the remaining 16%, some are purely CLEC services, such as OSS Interface Availability and OSS Response Interval. Although demanding that retail analogs be created, no CLEC put forward any evidence that the Commission's proposed approach and "meaningful opportunity to compete" standard is lacking in any way that could handicap their ability to compete in the marketplace.[12]

Another reason to reject creating analogs is that even supporters acknowledge that apples-to-oranges comparisons would result, a position completely at odds with their position that parity between the analogs should be required. Thus, AT&T explains that "CLEC product groupings are compared to the ILEC's performance for the most comparable activity it performs for itself; otherwise the performance measurement

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[12] Over time, benchmarks will emerge for these services based on market experience. Until that time, as the Commission recognizes, it cannot set informed standards for service provisioning, especially given the variation among ILEC systems and operations and the variation among CLECs, their business plans and capabilities. *Notice* at ¶ 125. Although a few CLECs called for the Commission to establish performance standards, *see, e.g., MCI Comments* at 16-21, no CLEC supplied any basis for informed progress in this area. Commission action is also not necessary here because CLECs are not left high and dry without these standards. BellSouth has negotiated individual performance standards with individual CLECs according to their business needs and BellSouth's capabilities. The Commission's should refrain from setting performance standards and allow carriers to negotiate efficient market-based solutions.

process will not provide an accurate determination of parity." *AT&T Comments* at p. 38 (emphasis added). Selecting ILEC analogs because they are "most comparable" is not a prescription for choosing an analog, and is no basis for measuring parity. Applying statistical analysis to evaluate the absence of parity between such "analogs" would be misleading at best.

The retail analogs proposed by CLECs illustrate the fact that apples-to-oranges comparisons will result. For example, AT&T proposes that a POTS outside move be used as an analog for an analog UNE loop. *AT&T Comments*, Attachment E. However, an outside move can involve many order types not related to UNE loops. An outside move may require physical work at multiple or dual locations and always has a dual loop whereas the UNE loop is always a single loop. Of course, a UNE loop order requires inter-company coordination, adding an additional element to the CLEC service.

CONCLUSION

Performance measurement in the areas identified by the Commission is an inherently complex task. Making it doubly so are the many differences among ILEC systems and capabilities. Attempting to micro-manage this business through the set of extremely detailed measures the Commission proposed would not be wise or consistent with Congress's deregulatory intent. It certainly would not be economical. Further disaggregation would only worsen the problem. Thus, under no circumstances should the Commission proceed beyond adopting model guidelines. Any such guidelines must make every effort to guarantee ILECs the maximum amount of flexibility to implement

the measures, or other more efficient approaches to performance measurement. The current record does not support endorsing an approach to statistical analysis.

Respectfully submitted,

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* These reports are subject to change due to regulatory requirements.

PRE-ORDERING AND ORDERING OSS

Function:	Average Response Interval for Pre-Ordering and Ordering Legacy Information & OSS Interface Availability
Measurement Overview:	As an initial step of establishing service, the customer service agent must establish such basic facts as availability of desired features, likely service delivery intervals, the telephone number to be assigned, product and feature availability, and the validity of the street address. Typically, this type of information is gathered from the supporting OSS's while the customer (or potential customer) is on the telephone with the customer service agent. This information may be gathered via stand-alone pre-order inquiries or as part of the ordering function. Pre-ordering/ordering activities are the first contact that a customer may have with a CLEC. This measure is designed to monitor the time required for the CLEC interface systems to obtain from legacy systems the pre-ordering/ordering information necessary to establish and modify service. This measurement also captures the availability percentages for the BST systems that the CLEC uses during pre-ordering and ordering. Comparison to BST results allow conclusions as to whether an equal opportunity exists for the CLEC to deliver a comparable customer experience.
Measurement Methodology:	1. Average OSS Response Interval = Sum [(Date & Time of Legacy Response) - (Date & Time of Request to Legacy)]/(Number of Legacy Requests During the Reporting Period) The response interval for retrieving pre-order/order information from a given legacy is determined by summing the response times for all requests (contracts) submitted to the legacy during the reporting period and then dividing by the total number of legacy requests for that day. The response interval starts when the client application (LENS for CLECs; RNS for BST) submits a request to the legacy system and ends when the appropriate response is returned to the client application. The number of legacy accesses during the reporting period that take less than 2.3 seconds and the number that take more than 6 seconds are also captured. Definition: Average response time for accessing legacy data associated with appointment scheduling, service & feature availability, address verification, request for Telephone Numbers (TNs), and Customer Service Records (CSRs). 2. OSS Interface Availability = (Actual Availability)/(Scheduled Availability) X 100 Definition: Percent of time OSS interface is actually available compared to scheduled availability. Availability percentages for CLEC interface systems and for all legacy systems accessed by them are captured.

PRE-ORDERING AND ORDERING OSS

Reporting Dimensions:	Excluded Situations:
• Not CLEC specific. • Not product/service specific. • Regional Level	• None
Data Retained Relating to CLEC Experience:	**Data Retained Relating to BST Performance:**
• Report Month • Legacy contract type (per reporting dimension) • Response interval • Regional Scope	• Report Month • Legacy contract type (per reporting dimension) • Response interval • Regional Scope

LEGACY SYSTEM ACCESS TIMES FOR RNS

System	Contract	Data	< 2.3 sec	> 6 sec	Avg. Sec	# of Calls
RSAG	RSAGTEN	Address	x	x	x	x
RSAG	RSAGADDR	Address	x	x	x	x
ATLAS	ATLASTN	TN	x	x	x	x
DSAP	DSAPDDI	Schedule	x	x	x	x
CRIS	CRSACCTS	CSR	x	x	x	x
OASIS	OASISNET	Feature/Svc	x	x	x	x
OASIS	OASISBSN	Feature/Svc	x	x	x	x
OASIS	OASISCAR	Feature/Svc	x	x	x	x
OASIS	OASISLPC	Feature/Svc	x	x	x	x
OASIS	OASISMTN	Feature/Svc	x	x	x	x
OASIS	OASISOCP	Feature/Svc	x	x	x	x

LEGACY SYSTEM ACCESS TIMES FOR LENS

System	Contract	Data	< 2.3 sec	> 6 sec	Avg. Sec	# of Calls
RSAG	RSAGTEN	Address	x	x	x	x
RSAG	RSAGADDR	Address	x	x	x	x
ATLAS	ATLASTN	TN	x	x	x	x
DSAP	DSAPDDI	Schedule	x	x	x	x
HAL	HALCRIS	CSR	x	x	x	x
COFFI	COFIUSOC	Feature/Svc	x	x	x	x
P/SIMS	PSIMSORB	Feature/Svc	x	x	x	x

PRE-ORDERING AND ORDERING OSS

OSS Interface Availability

OSS Interface	% Availability
LENS	x
LEO Mainframe	x
LEO UNIX	x
LESOG	x
EDI	x
HAL	x
BOCRIS	x
ATLAS/COFFI	x
RSAG/DSAP	x
SOCS	x

ORDERING

Function:	Ordering
Measurement Overview:	When a customer calls their service provider, they expect to get information promptly regarding the progress on their order(s). Likewise, when changes must be made, such as to the expected delivery date, customers expect that they will be immediately notified so that they may modify their own plans. The order status measurements monitor, when compared to applicable BST results, that the CLEC has timely access to order progress information so that the customer may be updated or notified when changes and rescheduling are necessary.
Measurement Methodology:	1. Percent Flow-through Service Requests = ∑ (Total of Service Requests that flow-through to the BST OSS) / (Total Number of valid Service Requests delivered to BST OSS) X 100. Definition: Percent Flow-through Service Requests measures the percentage of orders submitted electronically that utilize BSTs' OSS without manual (human) intervention. Methodology: • Mechanized tracking for flow-through service requests and manual SOER error audit reports (3/31/98). Mechanized tracking for SOER errors and flow-through (4/30/98). • BST mechanized order tracking. 2. Percent Rejected Service Requests = ∑ (Total Number of Rejected Service Requests) / (Total Number of Service Requests Received) X 100. Definition: Percent Rejected Service Requests is the percent of total orders received rejected due to error or omissions. Methodology: • Manual tracking for non flow-through service requests • Mechanized tracking for flow-through service requests • BST retail report not applicable. 3. Reject Interval = ∑ [(Date and Time of Service Request Rejection) - (Date and Time of Service Request Receipt)] / (Number of Service Requests Rejected in Reporting Period). Requests are provided based on four (4) hour increments within a 24 hour period, along with the percent greater than 24 hours. Definition: Reject Interval is the average reject time from receipt of service order request to distribution of rejection. Methodology: • Non-Mechanized Results are based on actual data from all orders. • Mechanized Results are based on actual data for all orders from the OSS. • BST retail report not applicable.

ORDERING

Measurement Methodology:	4. Firm Order Confirmation Timeliness = ∑ [(Date and Time of Firm Order Confirmation) - (Date and Time of Service Request Receipt)] / (Number of Service Requests Confirmed in Reporting Period) Definition: Interval for Return of a Firm Order Confirmation (FOC Interval) is the average response time from receipt of valid service order request to distribution of order confirmation. Results are provided based on four (4) hour increments within a 24 hour period, along with the percent greater than 24 hours. Methodology: • Non-Mechanized Results are based on actual data from all orders. • Mechanized Results are based on actual data for all orders from the OSS. • BST retail report not applicable. 5. Speed of Answer in Ordering Center = ∑ (Total time in seconds to reach LCSC) / (Total # of Calls) in Reporting Period. Definition: Measures the average time to reach a BST representative. This can be an important measure of adequacy in a manual environment or even in a mechanized environment where CLEC service representatives have a need to speak with their BST peers. Methodology: • Mechanized tracking through LCSC Automatic Call Distributor. • Mechanized tracking through BST retail center support systems.

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Reporting Dimensions:	Excluded Situations:
• CLEC Specific • CLEC Aggregate • BST Aggregate (Where Applicable) • State and Regional Level • ≤ 10 and ≥ 10 Circuit Categories not available in a pre completion order mode. • Resale Res and Bus reporting categories require adherence to OBF standards. • "Other" category reflects service requests which do not have service class code populated. • Dispatch, No Dispatch ≤ 10 and ≥ 10 Circuit Categories not available in a pre completion order mode.	• Firm Order Confirmation Interval: Invalid Service Requests, and orders received outside of normal business hours • Percent Flow-through Service Requests: Rejected Service Requests • % Rejected Service Requests: Service Requests canceled by the CLEC • Supplements on Manual Orders
Data Retained Relating to CLEC Experience:	**Data Retained Relating to BST Performance:**
• Report Month • Interval for FOC • Reject Interval • Total number of LSRs • Total number of Errors • Adjusted Error Volume • Total number of flow through service requests • Adjusted number of flow through service requests • State and Region	• Report Month • Interval for FOC • Reject Interval • Total number of LSRs • Total number of Errors • Adjusted Error Volume • Total number of flow through service requests • Adjusted number of flow through service requests • State and Region

Percent Flow-Through Service Requests

	Mechanized LSRs		BST Flow -Through	
Local Interconnection Trunks	X		Residence	X
UNE	X		Business	X
Resale - Residence	X			
Resale - Business	X			
Resale - Special	X			
UNE - Loops w/LNP	X			
Other	X			

Percent Rejected Service Requests

	Mechanized LSRs	Non-Mechanized LSRs
Local Interconnection Trunks	X	X
UNE	X	X
Resale - Residence	X	X
Resale - Business	X	X
Resale - Special	X	X
UNE - Loops w/LNP	X	X
Other	X	X

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Reject Distribution Interval and Average Interval

	Mechanized LSRs	Non-Mechanized LSRs
Local Interconnection Trunks		
UNE	X	X
Resale - Residence	X	X
Resale - Business	X	X
Resale - Special	X	X
UNE - Loops w/LNP	X	X
Other	X	X

Firm Order Confirmation Distribution Interval and Average Interval

	Mechanized LSRs	Non-Mechanized LSRs
Local Interconnection Trunks	X	X
UNE	X	X
Resale - Residence	X	X
Resale - Business	X	X
Resale - Special	X	X
UNE - Loops w/LNP	X	X
Other	X	X

Speed of Answer in Ordering Center

	Ave. Answer time (Sec.) / month
LCSC	X
Residence Service Center	X
Business Service Center	X